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TI Reinforcing mortar composition for preventing water leakage and rock fall  
in tunnel construction and method for constructing the same  
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DT Patent  
LA Korean  
IC ICM C04B014-04  
CC 58-3 (Cement, Concrete, and Related Building Materials)  
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PRAI KR 1999-54321		19991201		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
KR 2001053808	ICM	C04B014-04

AB A reinforcing mortar composition for preventing a water leakage and rock fall  
in tunnel construction is provided, which improves compression strength  
and bending strength and has excellent adhesion and generates little amount  
of rebound, and a method for constructing the same is also provided, which  
prevents generation of dust particles and increases tunnel boring speed  
and working stability. The reinforcing mortar composition comprises: (i)  
30-35% of cement; (ii) 28-33% of sand(S1) having a particle size  
of not more than 0.6 mm; (iii) 25-28% of sand(S2) having a particle size  
of more than 0.6 mm and not less than 2.4 mm; (iv) 5-10% of fly ash; (v)  
0.1-5% of high strength mixing agent; (vi) 0.1-0.65% of super  
plasticizer; (vii) 0.004-0.007% of Me cellulose; and  
(viii) aluminate accelerator. The method comprises steps of: (i) stirring  
the reinforcing mortar composition in a mixer; and (ii) pumping the stirred  
composition of the step (i) with a rotor starter where the composition is  
sprayed on  
the inside of the tunnel by the accelerator and compressed air being  
connected to a pumping nozzle.  
ST reinforcing mortar compn tunnel water leakage rock fall prevention  
IT Ashes (residues)  
(fly; reinforcing mortar composition for preventing water leakage and rock  
fall in tunnel construction and method for constructing the same)  
IT Cement  
Concrete  
Mortar